

BETWEEN CONVENTIONAL SCIENCE AND CONSCIEN- TIOLOGICAL NEOSCIENCE

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ABSTRACT. From a diachronic perspective of the History of Science the author focus on the paradigmatic changes that have occurred in the western world since Antiquity, including both conventional science and Conscientiology. To address the problem of demarcation between science and pseudoscience the author applies Popper's Principle of Refutability to Conscientiology and, dealing with the problem of the human death in a dialectic way, suggests the scientific character of the neoscience Conscientiology.

Keywords: History of Science; Conscientiology; scientificity.

INTRODUCTION

The boundaries of human knowledge, even considering the most obscurantist medieval times, never ceased to move. In a diachronic historical insight we can verify the undoubted amalgam between human knowledge and the current form of society in every age. The linkage between power and knowledge has existed since the beginning of humanity's evolutionary process; this linkage often results in impediments and poor use of scientific development, as well as in severe restrictions on the agents generating knowledge.

This author, after various personal experiences, decided to use the consciential paradigm without abdicating the valuable knowledge arising from conventional science. The focus is on three main points in this article: paradigmatic changes since Antiquity; the historical evolution of the consciential paradigm; and a dialectical comparison between conventional science and the neoscience Conscientiology.

THE PARADIGMATICISM

The heroic activity of an isolated scientist, whether in experimental refinement (Positivism), or in the rational criticism of empirical data (applied rationalism) has been considered a basic element to generate progress in science.

Thomas Kuhn introduced another current of scientific epistemology, the paradigmatic, to establish the community of scientists as the main character in this epic of progresses that is the history of science. The new main character no longer has the charm of the heroic individual scientist isolated in their search for truth. Since it is the product of a collective, knowledge moves within a game of forces, interests and beliefs.

Paradigms, according to Kuhn (1962), are universally recognized scientific achievements that, for some time, provide exemplary problem solutions for the community of practitioners of a science. According to the Greek etymology of the word, paradigm means that which is beyond, indicating a direction (CARDOSO, 1993).

Kuhn sustains that all scientific progress takes place around paradigms in a binomial consensus / dissension around paradigms. In the first phase, called normal science, all the scientists are aligned around a general mold of science, a kind of puzzle, a practice with clear rules and defined solutions, the aim of which is not to search the unknown, but to organize the whole universe into the form of what is known. This would be his understanding of a paradigm. On the other hand, according to Leal (2005), the revolutionary movement is inaugurated in the dissent, in crossing the known to the unknown and in all disarrangement of the game's rules. This anomic period follows the search for new epistemological foundations, as well as new interpretations for the paradigm in crisis. Through an imminent overcoming, new models are launched, until the community realigns around one of them. Interestingly, two paradigms can coexist for some time with the prevalence of one or another coming some time later, or they may interact in a healthy coexistence heading toward a third paradigm in a kind of dialectic synthesis.

PARADIGMATIC EVOLUTION FROM GREEK MYTHOLOGY TO CONTEMPORARY PHYSICS

One of the most revolutionary periods of the history of Western civilization lies between the VI and IV centuries BCE when there was a paradigm shift from mythical thinking to philosophical thinking in the region called Asia Minor, on the shores of the Eastern Mediterranean.

Mythical thinking established an order that did not even dream of comparing its contents with another supposed "world view". It was a collective system of beliefs that manifestes itself in practice, in conduct, in sentiments and in words, in an absolute manner that was incompatible with any other way of thinking (Ribeiro, 2004).

In the late sixth century BCE came the flowering of colonies located on the islands and along the coasts of Asia Minor, catalyzed by successive migrations caused by Dorian invasions and the ruin of the Cretan-Mycenaean kingdom. There was the inevitable mythical encounter between different communities, making the relationship between the "same" and the "other" to become a problem, forcing the relativization of myths inherited from tradition. The myths no longer satisfied the increasing requirements in the explicitation of the how and why in the transformations of the world. It was up to the first philosophers to draft an increasingly more rational and desecrated relationship between language and reality.

Transformations of the world (becoming of the world), for the pre-Socratic philosophers, did not occur at random, but obeyed certain laws by physis (eternal nature and in constant transformation) which men were part of. They sought causal relationships in the world and no longer in supernatural entities. Zeus, Cronus, Prometheus, Pandora and other fantastic entities that, through myths, ordered reality, gave place to "natural" elements suchs as water, air, fire, earth, through which these thinkers tried to rationalize reality in its most diverse realizations. Natural science was thus initiated, in partnership with Philosophy.

The foundation of Science is attributed to Thales of Miletus (624 BCE – 558 BCE) for proposing that “water (hydor) is the principle (arqué) of all things”. But only the proposition of a principle wasn’t enough to form science: there had to be a refutation of the hypothesis. It was Anaximander of Miletus, a disciple of Thales, who argued: water cannot be the fundamental substance, for it is essentially moist and nothing can be its own contradiction. If Thales was correct, the opposite of moist could not exist in substances, which would contradict the observation of dry things in the world. Therefore, Thales was wrong, and so was born the critical tradition, fundamental to the advancement of science.

Hellenic science was built on the foundations consolidated by Thales and Pythagoras (571 - 496 BCE) and reached its peak in the works of Aristotle (384 – 322 BCE) with two main features: i) the universe as an ordered structure (kosmos in Greek means “order”); and ii) the conviction that this order was not that of a mechanical device but of an organism; all parts of the universe had purposes in the general scheme of things, and objects moved naturally seeking to fulfill the purposes they were designed for (they had their natural place). This movement in search of its natural place is studied in teleology.

In Physics, teleology is not appropriate and Aristotle had to impose it on the cosmos. He inherited from Plato the theological proposition in which the celestial bodies (stars and planets) are literally divine and, as such, perfect. Therefore they should move in perfectly, eternally and immutably, or in perfect circles in Plato’s definition. The primary cause of all movement was God, situated outside of the cosmos. For Aristotle, all activity that occurred spontaneously was natural. Thus, the most suitable way of investigation was pure observation. Experimentation, which involves changing natural conditions to elucidate the properties of objects, was unnatural and, therefore, could not reveal the essence of things. Experimentation was not necessary to Greek science. The teleological question was *why* and not *how*.

Aristotelian science that, by banning experimentation, put Man in the center of the Universe and God as the primary cause of movement, served the interests of the dominant class of the time, in this case the Catholic Church. This Aristotelian theory, as well as the absolute command of the Church, lasted for over 20 centuries.

It was in the end of the dark Middle Ages, with the ascent of the bourgeoisie, that Galileo Galilei (1564 – 1642) arose to oppose Aristotelian theory and subsequently propose a new paradigm shift that inaugurated the Modern Age. Galileo first analyzed the problem of the movement of projectiles; while the physics of Aristotle theorized, without experimentation, that “the heavier a body is, the bigger is the speed with which it falls”, Galileo, testing this theory through experimentation, proved that “objects of unequal weights fall at the same speed”.

For Galileo everything was measurable. He founded Physics as we know it today, based on experimentation and formulating not absolute but relative, refutable theories. On the memorable night in which Galileo pointed his telescope to the sky, beheld the

grandest spectacle that until then was presented to the eyes of one man: the infinite sky lit by endless stars, suspended in the immensity of darkness. Where hitherto their eyes had only seen diffuse whitish vapors, their powerful lenses exposed to him a swathe of stars from the Milky Way. He found that the Milky Way is made up of a huge mass of distant stars and observed the moon's mountains and seas, whose surface was until then supposedly regular. It was on this night that astronomy as a science was born. Intrepidly, Galileo dared to reaffirm the Copernican heliocentric theory: the earth does not occupy the center of the Universe. He was accused of heresy by the Inquisition and had to abjure to escape a fiery death; but, under his breath, he muttered the famous phrase that symbolizes resistance against irrational dogma "*Eppur si muove!*" (And yet it moves!). He was sentenced to house arrest and died blind in the year that Isaac Newton was born.

In a research poll run by the Royal Society of London, Newton was considered the scientist who caused the greatest impact on the history of science, even greater than Albert Einstein. In Newton's time theology was considered the queen of sciences. In fact, to get a job in the University, he had to work on theology, which Newton managed to perform with great success and productivity. From a scientific point of view, Newton is the author of *Philosophiæ Naturalis Principia Mathematica*, published in 1687, which describes the law of universal gravitation and Newton's laws – the three laws of moving bodies which are the foundation of classical mechanics.

In the late XIX century scientists believed they could explain all observed phenomena; considered that, if were given the positions and initial velocities of all things it would be possible to calculate the world's configuration at any future time by Classical Physics (based on the forces and the laws of Galileo and Newton). Thermodynamics, base of the construction of thermal machines, indispensable to the Industrial Revolution, was well established. Electromagnetism explained with success the propagation and properties of light as waves. In short, everything that was until then known could be explained within the paradigm of Classical Physics.

However, at this time experimental results began to appear to which Classical Physics offered no explanation. For example, the distribution of radiation from a heated cavity (black body), the photoelectric effect, and electron diffraction.

Explanations began arriving in the early 20th century: to reach the formula that explains the distribution of radiation emitted by a black body, Max Planck (Nobel Prize 1918) had to postulate that radiation was quantized in energy packets, photons, big news at the time. His postulate was considered a "desperate act" that appeared devoid of common sense. To explain the emission of electrons by a metal surface exposed to light (photoelectric effect), Albert Einstein (Nobel Prize 1925) took the photonic postulate of Plack and concluded that light behaves as waves and as particles: they propagate as waves, but exchanges energy as particles, in a wave-particle duality. To understand the diffraction of particles (electrons) over a crystalline network, a property typical of waves, Louis de Broglie (Nobel Prize 1929), in his doctoral thesis, inspired by the work of Einstein, postulated that the dual behavior (wave-particle) also behaves like matter.

So, not only can the electromagnetic waves behave as particles, but also the particles have a undulatory nature. This founded the Undulating Mechanics, the basis of Quantum Physics and has been proposed as the quantum paradigm.

But how to describe with waves, which are not localized, a particle that occupies a well defined place in space? The answer was given by Werner Heisenberg (Nobel Prize 1932): it is necessary to add several distinct waves so that it is possible to describe something as localized as a particle. The more waves we use, the better defined the particle's position will be, having, however, with a loss of information regarding the particle's velocity. Indeed, the Uncertainty Principle, enunciated by Heisenberg, says that the product of uncertainty in determining the position by the uncertainty in determining the velocity of a particle is constant; is one increases the other must decrease. So, why can we simultaneously measure, with extreme precision, the position and velocity of objects that surround us in the world we observe? A simple calculation using the mathematical expression of the Uncertainty Principle shows that uncertainty is only relevant to very small particles, in the scale of atoms and molecules, and it loses its sense in our macroscopic world.

We begin to perceive differences between Classical Physics (macroscopic) and Quantum Physics (microscopic) and to identify its domains of validity. In terms of equations of movement, while Newton's laws (including the famous relation between force, mass and acceleration) form the basis of the classic description, and has a well-defined trajectory, the motion of a non-relativistic quantum system is given by the equation proposed by Erwin Schrödinger (Nobel Prize 1933). The solution to this equation leads to a set, at times infinite, of possible solutions (system states) that have a certain probability that they will occur.

In the scope of classical physics, making a measurement on a system without changing its status is admitted as possible; for example, the light scattered by a ball, allowing us to see it, can be considered sufficiently low so as not to change its position or velocity. In quantum physics, on the other hand, measures change the state of the systems in a way that the result of the measure becomes a choice between several possibilities offered by a statistical distribution. In more technical terms, it is said that quantum systems are described by a coherent superposition of possible states, solutions to Schrödinger's equation; after the measurement, depending on the outcome of the experiment, the system is placed in one of these states.

One way of simplifying the understanding of the difference between classic systems and quantum systems is to consider the toss of a coin. From the classical point of view, before watching it, we can say that it is in an "superposition" of two states, one that corresponds to the face and one that corresponds to the crown.

If the coin is well balanced, each of these states has a 50% probability of occurring. The description in terms of a superposition represents only our ignorance about the state of the coin. From the quantum point of view we will have a coherent superposition of two possible states: prior to measuring the (now microscopic) "coin" is

simultaneously in both states. We have the system's complete information. The measurement (observation) is what puts the quantum system in one of its possible states. If we take a large number of measurements of identical coins it will be possible to access the average values of quantities. In other words, the shocking difference is that for a classical coin, before observation, we have heads or tails and, for a quantum coin, after observation, we have heads and tails.

One of the more subtle problems of contemporary physics is the relation between the macroscopic world, described by classical physics, and the microscopic world, governed by the laws of quantum physics¹. Would it be possible for a state of coherent superposition to exist in a macroscopic world? Could a stone be located in two distinct regions of space at the same time? In fact, in light of the quantum theory, it was difficult to understand why states such as these do not frequently occur to macroscopic objects. In a letter to the physicist Max Born in 1954, Einstein considered "the lack of classical level of states allowed by quantum mechanics" a fundamental problem, i.e. the coherent superposition in distinct classical states.

Answers to these questions began to emerge at the end of the 80s. Several physicists showed that the consistency of such superpositions is rapidly destroyed due to system interactions considering the rest of the Universe, due to the dissipative character (friction) of real systems. As a consequence of dissipation, the time associated with the loss of coherence of a superposition in distinct classic states is much smaller than the time associated to the loss of energy (dissipation time). An excellent article reviewing this subject was written by Zurek (1991).

To illustrate, consider a stone of mass equal to 1g that could be in *two places at the same time*, separated by a distance of 1cm. The ratio between time and coherence and the dissipation time is extremely small; to have a numerical idea, at room temperature, this stone has a coherence time 10^{40} times (the number 10 followed by thirty-nine zeros!) less than the dissipation time. Therefore, the disappearance of coherence is so rapid that it is practically impossible to observe quantum effects in the macroscopic world.

Thus, the quantum paradigm did not exclude the classical paradigm. Both are valid at the same time. There are two limits of observation, from the microcosmos to the macrocosmos respectively, from objects of size, from the order of atoms and molecules, and from the object we encounter in our daily lives. Indeed it can be shown that the classical description corresponds to a limit in the quantum description to the extent that quantum numbers become very large. It is possible to say that we currently see a dialectical synthesis between both paradigms, forming what might be called a paradigm of contemporary natural science.

¹For an introductory text see Luiz Davidovich, Dissemination Notebooks and Scientific Education 01/98, edited by Physics Institute of UFRJ. Part of this discussion is heavily based on this text.

THE CONSCIENTIAL PARADIGM

Conscientiology, an empirical and subjective neuroscience, is the study of the consciousness using an integral, holosomatic, multidimensional, bioenergetic, self-conscious, and cosmoethical approach (VIEIRA, 1994).

The study of the consciousness is enormously complex, because the subject is the very object of research. Therefore, possible experiences in this field present a *very personal* character.

In Conscientiology, theory and method are inseparable; the method is the condition of the existence of the theory (VOLKER, 1997). In other words, for the consciousness to be able to study itself, an experimental method is required that includes the possibility of identifying one's Consciousness.

The capacity of a Consciousness to manifest itself in a real, more subtle body is called Projection of the Consciousness (Vieira, 1999). It is in the act of a lucid projection that a Consciousness can recognize its identity, its various vehicles of manifestation and its existence in various dimensions (multidimensionality). Through lucid projection a Consciousness has the possibility of accessing its multiexistential memory (holomemory). Therefore, lucid projection determines the Consciousness' identity and can be considered a pillar Conscientiology's scientific method.

The paradigm that orients Conscientiology, outlined above, is denominated the consciential paradigm. This paradigm is heavily reliant on the following propositions: the postulate of multidimensionality, the hypothesis of immortality of consciousness, multiseriality, and the existence of the holosoma formed by the consciousness' four vehicles of manifestation. The three last propositions are clearly explained by Vieira (1994). The postulate of multidimensionality, however, requires some considerations and correlations with Physics.

We know that Physics has exerted a great influence in several aspects of human society. Its contributions, as a natural science and generator of technologies, have transformed the conditions and way of life on this planet, especially over the last centuries.

The influence of Physics on human knowledge extends to philosophical and cultural thought. Considered the basis of natural science, its concepts are constantly tested, sometimes being refuted or else made more comprehensive so as to encompass new experimental observations.

Physics has a wide appeal in relation to conceptual migration (VUGMAN, 1999). Conceptual migration understands the use, especially by neosciences, of concepts previously defined in the context of another pre-established science. As sciences must be based on clear and precise concepts, defined within specific contexts, conceptual migration can be dangerous; in escaping the scientific context in which was created it must be altered with extreme caution, avoiding contamination and reduction instead of

helping and clarification. This care should be doubled in the case of an empiric and subjective neuroscience such as Conscientiology.

From the stand point of conceptual migration, physics has been a large barn of concepts for various other sciences. For example, the concept of energy, which Classical Physics relates to the ability to perform work, but which is also associated to mass and the velocity of light through the Theory of Relativity, is one of the favorites for migration. Among other concepts that have tried to be migrated, some at great risk, we highlight concepts of frequency and resonance, as well as the generally mistaken simplistic importing of aspects from Quantum Physics.

The physical concept that we are interested in discussing at this point is the dimension. In the domain of non-relativistic Classical Physics, i.e., in the world in which we live, dimension refers to the minimum number of necessary coordinates to a unambiguous determination of a point in space. There are three spatial coordinates plus a fourth dimension, time, that parameterize the problem. When considering multidimensionality in Conscientiology the word dimension must be complemented. Therefore, we will have an intraphysical dimension, related to our physical world, as referred above with its four coordinates, and an extraphysical dimension that is absolutely not a fifth or n^{th} dimension, but a *state of consciousness* possible to reach through lucid projections where, using our psychosomatic or mentalsomatic vehicle, we have the possibility of finding consciousnesses that are no longer encountered in intraphysicality. In this way we realize that the postulate of multidimensionality is complemented with the hypothesis of the immortality of consciousness and the existence of the holosoma. In conscious projections it is possible to access a range of consciential states depending on our existential moment and the assistantial needs. This may be states that allow interaction with more or less evolved consciousnesses; Conscientiology describes these states in terms of denser dimensions (baratroposphere) and more subtle dimensions respectively. Clearly the number of consciential dimensions is infinite, as consciential states form a continuum.

THE FIRST WESTERN CONSCIENTIOLOGICAL PROPOSALS

Elements of the consciential paradigm such as the hypothesis of immortality of consciousness and multiseriality (the process of a series of existences in the intraphysical to which consciousnesses are subject) are basic themes in various multimillenary Eastern cultures. The Western culture in which we are immersed, drank Eastern philosophy through the travel of pre-Socratic philosophers to India, China and the Middle East (mainly Egypt).

PRIOR ANALYSIS OF THE PHILOSOPHICAL SITUATION IN ANCIENT GREECE.

The Greek religion is an amalgam of beliefs belonging to an originating ethnicity of the Mediterranean, which persisted through successive invasions that started around 2000 BCE and culminated in the last Doric raids around 1100 BCE. The Dorians

brought with them a Nordic religion, aristocracy attitudes of a conquering race, as well as the capacity of clear reasoning seen as the “light of Hellas” (Hellas in Greek means Greece). The religious habits of the ancient Greeks, whatever they were, seem to be lost to us, although the society described by Homer (approximately 700 BCE) in the Illiad and the Odyssey is dominated by a practical and rational world.

We can recall a passage in the Illiad in which the gods lined up their favorite warriors and began to fight each other (MONTEIRO, 1997, p. 9). Poseidon wants to draw Apollo into battle, but Apollo answers:

Lord of the earthquakes, it would be unwise for me to fight someone like you, for the sake of miserable mortals who are like leaves: today shining in the flame of life and eating the fruits of the earth; tomorrow they will age and die. No, let us remain on the sidelines of the fight, let them wage war on their own.

Man was considered mortal and destined to disappear, so it was not rewarding for the gods to concern themselves too much with them. Although the gods had much to do with the passionate life events of men, they would be of no use in relation to their death, since death has no meaning to gods. To be more precise, it is said that some great heroes, familiar to and favorites of the gods, were conducted to the “Elysian Plain at the ends of the earth...where life is easier for men” (Odyssey 4, 563). For the Odyssey of Homer see Lattimore (1991) in the references.

It is true that the Homeric Greeks believed in a certain continuity after death. But this was a destiny to be expected with absolute horror. The souls of the dead passed, in Hades, through an odious, weak existence, devoid of any pleasure and all capacity for effective action. When Ulysses goes to Hades to counsel Teiresias he meets the ghost of his mother and, while trying to hold her, she escapes from his arms like a shadow or a dream (Odyssey 11, 479). The spirit of the late Patroclus floated above the sleeping Achilles every night, begging for a proper burial in order to no longer disturb the living. But when Achilles reaches for his hand, Patroclus flies away laughing – just a ghost (Illiad 23, 65). For the Illiad of Homer see Lattimore (1961) in the references.

Although Achilles himself becomes a prince of the world of the Dead, he tells Ulysses “I would rather be someone’s employee on Earth, in the house of a poor man, than to reign over the dead” (Odyssey 11, 489).

The Greek word for soul was *eidolon*, which means “image”. The soul, and with it the existence after death, is a shadowy image of life. This is the crucial point: real life was the life of the body. The soul was only considered an unreal reflection of life.

IMMORTALITY AND JUSTICE IN THE GREECE OF PLATO AND CONSCIENIOLOGICAL COSMOETHICS

Homeric society had enormous energy and impetus for growth, just as an incredible presence of mind does in relation to the psychology of human behavior. However, the moral problems affecting human life were left completely unresolved.

Let's not be fooled into thinking that men and women from the Iliad and the Odyssey felt exactly like us on issues as virtue and justice – how a man should behave in relation to his companions. Our sense of affinity towards those heroes of the past lies especially in the psychological realism with which their anger and ambitions, their loves and laments, their sense of honor and shame are conducted. We do not easily pay attention to facts like Agamemnon killed the sons of Antimachus although they begged for mercy, having cut off their heads and arms and made their bodies roll like logs in the battlefield (Iliad 11, 146 f); or let us remember Hector, who stripped the corpse of Patroclus and dragged it behind his war chariot until the head fell off and was devoured by Trojan dogs (Iliad 17, 125 f). Nobody thinks there may be something *wrong* with these procedures.

Wars were fought targeting women as property and as reward. Revenge on the enemy by enslaving and raping his wife was the usual procedure. Piracy was a respectable profession. Stealing another's property and getting away with the theft made people not only admirable, but virtuous (Odyssey 19, 395 f). In fact, being a virtuous man meant providing an aristocratic lineage, to have lands, livestock, house, slaves and the wealth and power to defend them. For the Greeks of that time, a poor virtuous man could not exist. Moreover, it was not possible for a man to successfully protect his property and lose his virtue, no matter how uncontrolled or unjust he was. There was very little sense of individual rights, and, what is more important, no way to appeal in case of an injustice.

The problem of justice and the meaning of virtue became a relevant theme in Greek life of the fifth century BCE. The life of Socrates and the dialogues of Plato, his disciple, were devoted to this topic.

One of the best answers to this ethical question can be found in the passage from a Dialogue of Plato called the Meno, translated into French by Chambry (1936, p. 365). The Meno marks the end of the first group of the Dialogues in which Plato makes Socrates ask endlessly and fruitlessly the following: is there anything that can be a virtue or truth? Can we know it?

The answer found by Plato in *Meno* marked the beginning of the separation between mind and body that has characterized Western philosophical thought since. In the *Meno*, Socrates engages in a heated discussion with Meno, a young and wealthy aristocrat, as to whether virtue can be taught. Socrates says that *he does not even know what virtue is*. Meno shakes his hands and says: *but how can you search for something if you don't even know what it is?* Previous dialogues usually stop at this point, with sophistic statements that it is impossible to start researching a vague idea, and Socrates insisting that it is preferable to continue to seek an answer. But, here, something completely new happens in the Dialogues. Socrates replies that he has a better

answer to the question of how virtue can be found, "*from men and women who understand the truths of religion*" (here understand "the truths of religion" is, simply, to accept virtues as something that cannot be explained, but can be intuitively conceived). Socrates explains whatever he means to say with that in a passage that is the key for the philosophy of Plato since then:

Meno: What did they say?

Socrates: They spoke of a glorious truth, as I conceive.

Meno: What was it? and who were they?

Socrates: Some of them were priests and priestesses, who had studied how they might be able to give a reason of their profession: there, have been poets also, who spoke of these things by inspiration, like Pindar, and many others who were inspired. And they say-mark, now, and see whether their words are true-they say that the soul of man is immortal, and at one time has an end, which is termed dying, and at another time is born again, but is never destroyed. And the moral is, that a man ought to live always in perfect holiness. "For in the ninth year Persephone sends the souls of those from whom she has received the penalty of ancient crime back again from beneath into the light of the sun above, and these are they who become noble kings and mighty men and great in wisdom and are called saintly heroes in after ages." The soul, then, as being immortal, and having been born again many times, and having seen all things that exist, whether in this world or in the world below, has knowledge of them all; and it is no wonder that she should be able to call to remembrance all that she ever knew about virtue, and about everything; for as all nature is akin, and the soul has learned all things; there is no difficulty in her eliciting or as men say *learning*, out of a single recollection -all the rest, if a man is strenuous and does not faint; for all enquiry and all learning is but recollection.

Plato proposed a new theory of knowledge which has a more accurate basis than the sophistic dilemmas, that impeded the progress of the epistemological discussion. We know, Plato says, because we remember that we already knew, that we have learned before our birth, when for several incarnations the disembodied soul can learn about all that there is. The soul is separate from corporal incarnations.

In modern Conscientiology justice and virtue are also connected to immortality and to the resoma (reincarnation) of the consciousness (platonic soul). However, it expands ethics to encompass multidimensional virtuous behavior. Behavior in "other worlds"

was not a platonic concern. But to conceive the existence of multidimensionality, recognizing that the intraphysical dimension is only a possibility, it becomes essential to transcend ethics for a greater ethics, cosmoethics. Cosmoethics reflects the existence of “leading edge relative truths”, a concept associated with the possibility of change in knowledge acquired through personal experimentation of multidimensional experiences; captured in the motto “may what happens be the best for everyone”, conscins (intrapysical consciousnesses) and conscexes (extraphysical consciousnesses), all inhabitants of this Universe. The problem that Cosmoethics brings to a head is that, due to the intraphysical restriction, we do not have the lucidity to know exactly what is the best for everyone.

THE ORPHIC VISION AND PROJECTION OF THE CONSCIOUSNESS

The priests and priestesses of whom Plato speaks in Meno, whose interest concerns the immortality of the soul, and whose doctrine helped Plato develop an idealistic solution to the problem of knowledge, are the Orphics, who suddenly appeared in the body of Greek literature at the end of the sixth century or at the beginning of the fifth century BCE. There is a memorable statement that contradicts the Homeric view of the soul as a reflection of the shadow (made of shadows) of true life in the body:

“The body of every man is subjected to the powerful death, but there remains a living image of a living man; this picture alone comes from the gods. She sleeps when the senses are active, but for those who sleep in many dreams it reveals a reward of joy or sorrow.”

The Greek word for soul, in this passage, is still image (eidolon), but the image of the soul is no longer seen as a ghost wandering the fields of Hades. Rather, it is completely alive, in fact the only truly living part of the person, because the soul comes from the gods, it is divine and can not die, while the body suffers the fate of all corporeal things and will pass with time.

Moreover, the soul sleeps while the body is active and awake, but, when men sleep, the soul awakens and in the dreams of men indicates the truth about his life to him and if he is inclined to a good or bad end. Here there is a direct relation to an experimental technique from Conscientiology, the conscious projection. According to modern Projectiology, it is possible for the consciousness to lucidly project through an action of the will, with the help of several techniques, aiming for self and heterocognition, as well as interassistentiality (realization of cosmoethical tasks). It is no longer necessary to sleep in order to project, instead the contrary, lucidity and the possibility of a state of continuous consciousness are sought, where contact with multidimensionality alternates with the experience of intraphysicality (waking life).

PLATO’S EPISTEMOLOGY AND THE EPISTEMOLOGY IN CONSCIENTIOLOGY

Let us remember that Epistemology is the branch of philosophy that focuses on the nature of knowledge and seeks to determine the limits of human understanding. Central themes of Epistemology include how knowledge is produced and how it should be validated and tested.

It was the new doctrine of immortality, the notion of “the image of living man”, the soul, which could survive an “all-powerful death” of the body, as well as the fact that “it spends the rest of the time with God” that inspired the theory of knowledge of Plato as reminiscence in *Meno*. To validate his theory, Plato based it on a religious doctrine that accepted without questioning: there is an essential difference between body and soul. What is real and true is known by the mind.

Platonic learning is not based in conclusions that can be taken as a result of interaction with an external object. It is a process of remembrance of internal truths. The *reminiscence theory* rests on a non-empirical basis and an absolute standard, always present in the mind, which serves as a reference point for the phenomenological experience. The reminiscence theory of Plato led directly to his doctrine of forms and the idea of good. At the same time, the reminiscence theory satisfied Plato because it is based on an immortality doctrine which, in turn, meets the moral problem of retributive justice. Otherwise Plato would not have chosen such a solution. This is the main point. “*This way*”, he says in the *Meno* passage described above, “*man must live all his days as fair and honest as possible.*”

Epistemology in Conscientiology, while recognizing learning by “reminiscences”, through access to the holomemory mainly obtained through lucid projection, does not consider the learning process of a consciousness as complete. Rather, one of the evolutionary goals is knowledge itself, ever being acquired, in whatever dimension the consciousness is. Self-research is the base of Conscientiology.

In fact, existential seriality can be seen as an epistemological process. One returns to Earth, this large hospital-school planet, also to “relearn” (in the broad sense of the word) through life in this dimension, to be more evolved and cosmoethically better.

THE AUTHORITY PRINCIPLE, THE REFUTABILITY PRINCIPLE AND THE DISBELIEF PRINCIPLE

Paradigms present associated philosophical principles. The principles delimit the way of thinking of the community that embraces them and more clearly exposes the bias of their behavior towards their understanding of what Science is (as an organization of knowledge).

The authority principle: from scholasticism to the present times

A second period in medieval thought began from the XII century. During this period the Roman Church dominated Europe, anointed and crowned kings, organized Crusades to the Holy Land and created, around cathedrals, the first universities or schools. Having been taught in schools, medieval Philosophy is also known by the name

Scholasticism and takes Plato and Aristotle as primary influences. During this period arises proper Christian Philosophy, which is, actually, theology. Among its main themes are the proofs of the existence of God and the soul, the difference and separation between infinite (God) and finite (man, world), the difference between reason and faith, the difference and separation between body (matter) and soul (spirit), the Universe as a hierarchy of beings, where the superior dominate and govern the lower (God, archangels, angels, soul, body, animals, plants, minerals), the subordination of the temporal power of kings and barons to the spiritual power of popes and bishops (RIBEIRO, 2004).

The authority principle was the method invented by Scholasticism to resolve the contradictions raised during the exhibition of philosophical ideas. This discussion process, known as dispute, consisted of presenting a thesis which must be refuted or defended by arguments drawn from the Bible, Aristotle, Plato or noteworthy Preists from the Church. One idea was considered a true or false thesis depending on the strength and quality of arguments found among various authors. The reasoning, logic, clarity were replaced by a notorial system of interpretation of a few texts taken as irrefutable.

The principle of authority, a remnant from obscurantism, has many fans nowadays. Ingenuity and mental laziness make crowds be driven by all sorts of fanaticisms, blindly following the word of all kinds of gurus, ministers and clergy. It is admirable to see that also in today's academic world the authority principle is operating, albeit covertly. It is, for example, the cult of infallible nobelism (*magister dixit*), the most valuable opinion of the PhD or that of who major knowledge in an area is attributed, as well as the deification of healthcare professionals to whom common sense and human misery readily attribute the special title of almighty doctor.

Refutability principle: from scientism to falsifiability

The school of thought that accepts only empirically verifiable science as a source of an explanation for *everything* that exists is called *Scientism*. As the social sciences or humanities are not empirically verifiable, this school overestimates formal and natural sciences to the absolute detriment of other sciences. Its intransigence is such that it has been called the "religion of science".

The difference between science and scientism lies in the scope of each. While modern science defines its borders excluding issues linked to metaphysics, scientism claims to be able to find the answers to all issues, including the transcendental, based exclusively on scientific methodology and natural empiricism.

A radical form of scientism is Positivism. This school, founded by Comte (1798 - 1857), which states that scientific knowledge is the only form of true knowledge; the progress of humanity depends solely and exclusively on scientific advances. All that can not be proved by science is considered as belonging to the theological and metaphysical domain characterized by beliefs and vain superstitions. As a backdrop to these

discussions is the problem of demarcation between science and pseudoscience. An essential aspect of science is its systematic search for improvement through experimentation and criticism, as well as the possibility of expansion to encompass new problems. These aspects imply a mutability of science itself and obscure the distinction between science and pseudoscience. Furthermore, science is heterogeneous and even well established science is not free from the characteristic defects of pseudoscience (HANSSON, 2012).

Karl Popper says that the problem of demarcation “*is the key to the fundamental problems of the philosophy of science*”. To Popper, the criterion to distinguish a theory from a hypothesis would be considered science or pseudoscience, or metaphysics, was the criterion of experimental or logic verifiability. When challenging this point of view, Popper (1962) proposes refutability or falsifiability as the necessary and sufficient criterion to solve the problem of scientific demarcation: “*a statement or a theory may be considered if and only if it is refutable*”. This Popperian interpretation may lead to the belief that the scientific or unscientific status of a theory does not change with time. However, Popper (1974) states that “*a metaphysical idea yesterday can become a scientific theory tomorrow, and this happens often*”.

Following this demarcation criterion, Physics, Chemistry, Biology, non-introspective Psychology, among others, are considered sciences. Psychoanalysis is considered a pre-science, because although it contains useful knowledge, it cannot be refuted. Astrology and Phrenology (theory that studies the character and human intellectual functions, based on the shape of the skull) are pseudosciences.

In short, a theory will be considered scientific *if and only if* its statements can be divided in two categories, each one with a number of nonzero affirmatives. A class will contain all statements that, if true, refute a theory, called by Popper potential refutators; another class will contain the statements that are consistent and corroborate the theory.

DISBELIEF PRINCIPLE: FROM SKEPTICISM TO NON-DOGMATISM.

The disbelief principle is a fundamental proposition of Conscientiology in which the researcher should not accept any idea in an a priori, dogmatic, or mystical manner and without reflecting and without submitting it to a critical, dispassionate and rational analysis. Through the disbelief principle the person replaces belief with knowledge coming from rationality and personal experience. The disbelief principle represents a practical challenge and can be postulated by the phrase, present and prominent in every room of conscientiological environments: “Do not believe in anything, not even what is informed here. Experiment, have your own personal experiences.”

It’s important to note that the “do not believe in anything” is not an apology for skepticism, but a methodological necessity of the neoscience Conscientiology to avoid being confused with religions that have the immortality of the soul and belief in reincarnatory among its dogmas.

WHY CONSCIENIOLOGY IS A NEOSCIENCE

We recall that the consciential paradigm is based on the following propositions: the postulate of multidimensionality, the hypothesis of immortality of consciousness, multiseriality, and the existence of the holosoma formed by the consciousness' four vehicles of manifestation. The basic proposition to support this paradigm is the hypothesis of immortality of the consciousness. Let us approach this question from a logic and dialectic point of view.

The dialectic human death implies in the following contradiction: die and disappear or die and do not disappear. In other words, it reveals the great doubt of the human being, based on thanatology: what happens after the inevitable human death?

Actually, who was gone in fact does not return to tell. However reports of near-death experiences reveal that who was almost gone had an excellent impression (Lufti, 2006), but was not gone.

According to Descartes (1637, 9) in his Discourse on Method, “*common sense, in the world, is the quality better distributed, because each one judges to be so gifted of himself that the most difficult to settle on other things not often want it more than what they do.*” I try to reason with good sense and logic (from which no one complains of being less acquainted than others). I come from the reality that the absolute lack of experimental evidence that allow us to affirm with certainty about the existence or not of a life after biological death. Therefore it is logical to outline *two* equally valid opposite hypotheses: *die and it is over* and *die and it is not over*. This dialectic opposition has been present in human thought throughout its history, the streams of innatism and empiricists opposing one another in an endless duel.

From the point of view of the philosophy of science the existence of this opposition allows the admittance of refutability in Conscienciology, and, therefore, according to Popper, consider Conscienciology a science, or, more appropriately, a neoscience.

The denomination neoscience emphasizes the novelty and also allows the scientific community to admit something the positive sciences despise: the possibility of us being something greater, immeasurable by Physics, undetectable by Chemistry and unknown to Biology, but subject to investigation using projectiological techniques. We are consciousnesses, we are more than the material body; we have a spiritual composition, which is natural and not supernatural, and that can be approached scientifically.

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